

Application No. 10/597,794
Response to the Office Action dated December 30, 2008

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IN THE CLAIMS

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A multi-eye imaging apparatus comprising a plurality of imaging systems each including an optical system and an imaging element and having a different optical axis,

wherein the plurality of imaging systems include:

a first imaging system having a pixel shift means for changing a relative positional relationship between an image formed on the imaging element, and the imaging element; and

a second imaging system in which a relative positional relationship between an image formed on the imaging element, and the imaging element, is fixed during time-series image capture, and

wherein the multi-eye imaging apparatus further comprises:

an image memory for accumulating a plurality of frames of image information captured in time series;

a shake amount obtaining means for comparing the plurality of frames of image information captured in time series by the second imaging system and accumulated in the image memory to obtain a shake amount; and

an image combining means for combining the plurality of frames of images accumulated in the image memory after their pixels are shifted relative to each other so that resolution of the combined image is higher than that of the plurality of frames of images.

2. (Cancelled)

Application No. 10/597,794

Response to the Office Action dated December 30, 2008

3. (Currently Amended) The multi-eye imaging apparatus according to claim 1 [[2]], wherein a change amount of the positional relationship by the pixel shift means is determined based on the shake amount obtained by the shake amount obtaining means.
4. (Original) The multi-eye imaging apparatus according to claim 1, wherein a change amount of the positional relationship by the pixel shift means is fixed.
5. (Currently Amended) The multi-eye imaging apparatus according to claim 1 [[2]], further comprising: a parallax amount obtaining means for obtaining a magnitude of a parallax from images captured by the plurality of imaging systems having the different optical axes, wherein the image combining means corrects and combines the images based on the parallax amount obtained by the parallax amount obtaining means and the shake amount obtained by the shake amount obtaining means.
6. (Original) The multi-eye imaging apparatus according to claim 5, further comprising: an optimal image selecting means for selecting image information which is used in the combination of the image combining means, from image information captured by the first imaging system and image information captured by the second imaging system that are accumulated in the image memory, based on the shake amount obtained by the shake amount obtaining means and the parallax amount obtained by the parallax amount obtaining means.
7. (Currently Amended) The multi-eye imaging apparatus according to claim 1 [[2]], further comprising: means for discriminating different subjects, wherein the shake amount obtaining means obtains a shake amount for each of the different subjects, and the image combining means combines images for each of the different subjects.
8. (Currently Amended) The multi-eye imaging apparatus according to claim 1 [[2]], further comprising: means for dividing image information into a plurality of blocks, wherein the shake amount obtaining means obtains a shake amount for each of the plurality of blocks, and the image combining means combines images for each of the

Application No. 10/597,794

Response to the Office Action dated December 30, 2008

plurality of blocks.

9. (Original) The multi-eye imaging apparatus according to claim 1, wherein the plurality of imaging systems having the different optical axes are composed of: an imaging system for handling a red color; an imaging system for handling a green color; and an imaging system for handling a blue color, wherein, for at least one corresponding to one color of the imaging systems corresponding to the respective colors, the number of the imaging systems corresponding to the one color is two or more, and the two or more imaging systems for handling the one color include the first imaging system and the second imaging system.

10. (New) The multi-eye imaging apparatus according to claim 1, further comprising:
a parallax amount of obtaining means for obtaining a magnitude of a parallax from images captured by the plurality of imaging systems having the different optical axes; and

an optimal image selecting means for selecting image information which is used in the combination of the image combining means, from image information captured by the first imaging system and image information captured by the second imaging system that are accumulated in the image memory, based on the shake amount obtained by the shake amount obtaining means and the parallax amount obtained by the parallax amount obtaining means,

wherein a charge amount of the positional relationship by the pixel shift means is fixed.